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AUTHOR Olmstead, Phyllis M.
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ABSTRACT

This study investigated minority race and gender enrollment in secondary and postsecondary vocational programs in comparison with majority race and gender enrollment. The population considered was the entire enrollment of vocational programs and prekindergarten through 12th grades in the State of Florida for the school year 1990-91. The study analyzed machine-readable data files of public school enrollment from the Division of Vocational, Adult, and Community Education of the Florida State Department of Education. Comparisons were made between the ethnic and gender percentages of the total prekindergarten through grade 12 population and the total vocational percentages for the state. The same comparisons were made between secondary vocational enrollment percentages and the total school populations. Racial minorities were not found to be overrepresented in secondary vocational programs or in the total of all vocational programs in the State of Florida. In fact, the percentage of minorities in the school population deviated from the percentage of minorities in vocational programs by just over 1 percent. Females were not overrepresented in the secondary vocational programs in the state. (Contains 3 tables and 11 references.) (JB)

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Are Minority Members Overrepresented in Vocational Education Programs?

Phyllis M. Olmstead

Curriculum and Instruction

University of Central Florida

620 Sherwood Oaks Circle

Ocoee, FL 34761-1414 (407) 299-6159

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Running head: MINORITY/GENDER VOCATIONAL ENROLLMENT

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Abstract

Minority race and gender enrollment in secondary and postsecondary vocational programs was investigated in comparison with majority race and gender enrollment. The population considered was the entire enrollment of vocational programs and prekindergarten through twelfth grades in the State of Florida for the school year 1990-1991. Racial minorities were not found to be overrepresented in secondary vocational programs or in the total of all vocational programs in the State of Florida. Females were not found to be overrepresented in the secondary vocational programs in the state.

Are Minority Members Overrepresented in Vocational Programs?

Education courses and the literature are saturated with comments and critiques on the equity of vocational programs in public schools. Vocational programs are blamed for the many downfalls of education, including: dropouts, poor academic performance, and ethnic and gender degradation. This research intends to present quantitative data to verify or deny program enrollment equity for ethnic and gender minorities.

Academic and vocational educators have developed an US and THEM mentality similar to the issues addressed by James Conant in The Education of American Teachers. His concern was about the antagonism between the colleges of arts and sciences faculty and the colleges of education faculty regarding teacher education. Today the same type of opposition occurs in the public school system between the "core" and "elective" instructional programs. Division of the ranks does not benefit the education of the students. Is it not the objective of the educational system to provide our youth with the best educational opportunities possible? If it is, the turfism must stop. Vocational and academic educators need to work more closely to provide the students with the most diverse and complete education possible.

Problem

To reach the goal of academic and vocational cooperation we need to eliminate some fallacies currently accepted as gospel or substantiate factual information with in each of our communities. The author began this research after sitting through several graduate education courses that repeatedly condemned vocational programs as being detrimental to ethnic groups and females. A review of the literature led to the discovery of several commonly quoted factors about the overrepresentation of minorities and females in vocational programs. The statements were several years old (one recently cited article dated back to 1968) and were not substantiated by statistics or original research. The terms disproportionate percentages, large numbers, underrepresented, and overrepresented are vague and subjective when not supported by percentages or other data. Other reports, supported by data and statistics, contrasted highly with the former reports.

The National Education Association (1990) states, with no quantitative support, that "Hispanic students are overrepresented in vocational education", "Asian students are underrepresented in general and vocational tracks", and "Black students are overrepresented in vocational education (p. 8)". Joan M. Lakebrink's (1986) article "Education and the Work Force" billboards a quote from the National

Coalition of Advocates of Students, "Vocational education today often tracks large numbers of low income, minority, and female students into dead-end employment (p. 36)." Editors appeared to have selected then paraphrased a direct quote to draw attention to the article with sensationalism.

In the same journal, Jeannie Oakes (1986) cites Caroline Persell by stating that "Disproportionate percentages of poor and minority youngsters (principally black and Hispanic) are placed in low ability, general, and vocational tracks" and goes on to state that "Given the original population of students for which vocational programs were designed, these placement patterns are not surprising (p. 33)." The statement regarding tracks mixed ability group leveling (low ability) with career planning tracks (general, vocational), apples and oranges.

In the same issues of Education Horizons as the Oakes article, Paul Campbell analyzes the results of two national longitudinal studies. He concludes that

> The white men, not the minority men, are most likely to be enrolled in vocational programs. This observation also holds for women, with the exception that, in the older study (NLS Youth), majority white women were more likely than white men to complete vocational programs. However, this tendency had reversed in the more recent

> survey (HS&B). In that survey, the women were no more likely than men to enroll in the vocational courses. Differences averaged 1% or less for majority white men and women and rarely over 2% for all minorities except native Americans. (p. 10)

The High School and Beyond Survey (HS&B) mentioned by Campbell was a longitudinal study performed by the National Opinion Research Center for the National Center for Education Statistics as contracted with the U.S. Department of Education. The base year study involved almost 60,000 sophomores and seniors from over 1,000 private and public high schools through out the United States. The schools were selected to properly represent minority and majority student populations. Students and administrators were questioned in regard to course offerings, enrollment, and school/student demographics (Jones et al., 1982).

Hypotheses

The first hypothesis made is that there will be no more than a +.05 difference between the percentage of white student enrollment and that of racial/ethnic minority groups in secondary vocational programs in the State of Florida.

The second hypotheses is that there will be no more than a +.05 difference between the percentage of the total

vocational enrollments compared to the percentages of ethnic minority groups in PK-12 enrollment in the State of Florida.

The final hypothesis is that there will be no more than a +.05 difference between the percentage of male and female students enrolled in secondary vocational programs in the State of Florida.

Method

In order to verify or deny the claims presented in the literature this author prepared to determine if the State of Florida currently practiced over enrolling vocational programs with ethnic minorities and females. The author obtained the most recent machine-readable data file of public school enrollment (see Table 1) from the Division of Vocational, Adult, and Community Education (DVACE) at the Florida Department of Education (FDOE).

Subjects

The data was evaluated on a statewide basis, although information for each county was included in the data file. The statewide information was broken down into total prekindergarten through twelfth grade (PK-12) enrollments for white, black, Hispanic, Asian, and Native American racial/ethnic categories, and gender divisions. The same categories were listed for secondary vocational (SV), postsecondary vocational (PSV), and postsecondary adult vocational (PAV) enrollments. The postsecondary programs

(PSV and PAV) also included figures for alien students (non-citizens). The alien students were not included in the comparison percentages for race/ethnicity as no heritage/racial/ethnic categories were designated. Aliens were included in the gender totals.

Procedure

Comparisons were made between the ethnic and gender percentages of the total PK-12 population and the total vocational percentages for the state. The same comparisons were made between secondary vocational enrollment percentages and the total PK-12 population. Each racial/ethnic and gender group was examined for the percentage of enrollment in vocational education within the group.

Table 1
1990-1991 Enrollment Data by Gender and Ethnic Category

Group	Enrollment Category			
	PK-12	SV	PSV	PAV
Race/ethnicity				
white	1,152,214	492,850	41,394	297,629
black	447,408	205,265	5,838	73,545
Hispanic	230,861	103,231	5,332	40,865
Asian	28,105	12,349	905	6,249
Native	3,083	1,496	275	1,294
Gender				
Male	959,372	404,945	21,078	185,597
Female	902,299	410,246	33,475	234,058
Total	1,861,671	815,191	54,553	419,655

Notes: Numbers from the DVACE 1991 1990-1991 Enrollment Data by Gender and Ethnic Category [Machine-readable data file].
PSV total includes 809 enrolled aliens. PAV total includes 73 enrolled aliens. PK-12: Prekindergarten through twelfth grade. SV: Secondary Vocational. PSV: Postsecondary Vocational. PAV: Postsecondary Adult Vocational.

The State of Florida designations for race were used. Ethnic group identification was made by the student or their guardian upon enrollment in the public school system. Race choices included: White--non-Hispanic, Black--non-Hispanic, Hispanic, Asian or Pacific Islander, or Native American--American Indian or Alaskan. There were no provisions for any biracial selections. Biracial students had to select a single racial designation.

RESULTS

Minorities are not unfairly represented in vocational programs in Florida. Table 2 shows that the secondary

vocational school enrollment of minorities is in proportion to the entire PK-12 enrollment. The PK-12 minority enrollment percentage for the state was 38.11%, the secondary vocational minority enrollment was 39.54%. This reflects only a 1.43% difference in minority enrollment in vocational education over their enrollment in the total PK-12 population.

When postsecondary vocational and postsecondary adult vocational programs are included with secondary vocational minorities there is even greater evidence that minorities are not overrepresented in vocational education in the State of Florida. Postsecondary vocational enrollment for minorities was 13.99% less than the PK-12 minority enrollment. Postsecondary adult vocational minority enrollment was 9.03% lower than the PK-12 minority enrollment.

Female enrollment in secondary vocational programs was only 1.86% higher than the same group's general PK-12 population. The gender group did have a higher enrollment in the postsecondary environments. A 12.89% increase in female enrollment occurred in the postsecondary vocational programs and 7.30% higher level of enrollment in the postsecondary adult vocational programs.

Table 2
1990-1991 Florida Ethnic Percentages

	Category			
Group	PK-12	SV	PSV	PAV
Race/ethnicity				
white	61.89%	60.46%	75.88%	70.92%
minority total	38.11%	39.53%	22.63%	29.07%
black	24.03%	25.18%	10.70%	17.53%
Hispanic	12.40%	12.66%	9.77%	9.74%
Asian	1.51%	1.51%	1.66%	1.49%
Native	0.17%	0.18%	0.50%	0.31%
Gender				
Male	51.53%	49.67%	38.64%	44.23%
Female	48.47%	50.33%	61.36%	55.77%

Notes: Formula = group population / total category population.
PSV total population includes 1.48% Aliens. PAV total population included .02% Aliens.

Table 3 indicates the percentage of students of each race or gender that attended secondary vocational programs in Florida during 1990-1991. Enrollment of racial minority students compared to white students (secondary vocational white enrollment percentage minus secondary vocational racial group enrollment percentage) varied by 1.17 to 5.75%. Native Americans (American Indians and Alaskans) accounted for the greatest variation in enrollment for the state. The percentage of females enrolled in secondary vocational programs exceeded the percentage of male enrollment by 3.26%.

Table 3
Percentages of Minority Group Enrolled in Secondary Vocational Programs as Compared with Majority Enrollment

Group	Percent	Difference
Race/ethnicity		
white	42.77	---.--
black	45.88	+ 3.11
Hispanic	44.72	+ 1.95
Asian	43.94	+ 1.17
Native	48.52	+ 5.75
Gender		
male	42.21	---.--
female	45.47	+ 3.26

Notes: Percent = SV group total / PK-12 group total.
Difference = majority Percent - group Percent.

Discussion

Hypothesis one

Does the State of Florida over enroll minority race students in secondary vocational programs? During the 1990-91 school year secondary vocational enrollment did not indicate excessive (+.05) tracking of minority race students.

One method that Florida uses to assure equality in enrollment opportunities for students in vocational programs is through the Middle School Wheel Program. Students in the middle school wheel program rotate through all elective programs offered in the school. Students are not restricted from exploring vocational areas available at their school based upon any cultural, racial, gender, or intellectual standard. Additionally, students are scheduled within the

framework of middle school teams by computer. Placement by a counselor occurs only when students enroll during the school year or when special circumstances arise (exemptions from physical education or medical reasons for not attending certain vocational or elective courses).

Hypothesis two

Are minority's overrepresented in all vocational programs in the State of Florida? No, the percentage of postsecondary vocational enrollments for minorities is actually much lower than minority percentages of the general PK-12 population. Vocational enrollment at the postsecondary level is a conscious choice of the individual and is not dictated by the state or district. This deliberate enrollment by the community populace is not indicative of a controlling authority restricting citizen opportunity based on race.

Pertinency of racial designations

In consideration of bi- and multi-racial families the State of Florida has removed race from the new state driver's license. A ten year old child should not be forced to identify with the race of one of their two parents. Forcing a biracial child to select one and only race may constitute cruel and unusual punishment or at least causes confusion.

This researcher has faced the task of collecting and verifying the races of middle and high school students. While teaching high school in the early 1980s the biracial issue was not a major concern, the small rural community was very segregated and did not appear to have any biracial families. Teaching middle school in an urban/suburban middle school in the 1990s enlightened the researcher to the psychological implications of asking biracial children to identify their race. The data file provided by the state included figures collected in the researcher's vocational program. Included in the class figures were counts of biracial students who had to choose between two or more races. One freckled-faced blue-eyed boy with a french surname came up to the desk when vocational FTE counts were being taken. His mother was American Indian and German, his black father was born in France. The child had a very difficult choice to make. The computer would not accept two choices in the section on race. One young girl who was Hispanic and white faced the same problem that same day, MOM or DAD. If race is no longer used for state identification purposes and is illegal to use as a hiring tool then it should not be considered a major issue in enrolling students in school or for federal accountability.

An additional concern of this researcher over determining racial designation is the existence of

heterogeneous cultures. Some Asian cultures have no racial designations. Many Hispanic individuals, in their country of birth, are considered black or white, not Hispanic. Upon enrolling in school in this country they sometimes claim the same racial identification that they used in their country of origin. Their indication of race may be due to the fact that they or their guardians are not fluent in the language used on the enrollment form or may not realize that the classification is used to determine minority status--not the shade of their skin. One female student's Hispanic mother considered herself white because of the color identification used in the country of her birth and enrolled all of her children as white. Yet another confusing issue for adolescents who are leaving a culture where they are in the majority and suddenly having to handle of the issue of being a racial minority.

Another possible complication in the racial identification procedure may be the interpretation of "Native American." If the enrollment forms are filled out and set aside for later processing some people claiming Native American status must then be verified as actually being American Indians or Alaskans. This researcher has witnessed many students (child and adult) selecting Native American because they were BORN IN AMERICA. The situation

is easy to remedy, but is it necessary to handle at all? We are almost all Americans, after all.

Every since the Revolutionary War this country has strived to developed unity. Nationalism has been an important part of our education system ever since Thomas Jefferson and Noah Webster. It appears as though the very presence and of racial categories causes prejudice, fragmentation, and division among our citizens. The previously mentioned father of the multiracial boy answers all inquires about "his race" with "the 50 yard dash." He feels his athletic preferences are much more important to other people than his genetic background.

Hypothesis three

Are females over enrolled in secondary vocational programs? No, females were only marginally (1.86%) overrepresented in the secondary vocational enrollment records. Females are not restricted from enrollment in any program and are not discouraged from enrolling in a career building program. The only case of sexist enrollment that this researcher has witnessed was when a well meaning guidance counselor placed a female student in an overloaded agriculture class. The second year technology education course, with a much lower class count, had all boys due to attrition. As mentioned earlier, the human factor in

scheduling comes into play during the hand scheduling of late enrollees or students in special situations.

Recommendations for further studies

Further studies will be required to determine if there is inequality between the vocational enrollment and types of secondary vocational programs offered at predominantly "white" schools versus predominantly "minority" schools within the state and in individual communities.

Additional investigations should be made into postsecondary counselling prior to enrollment in traditionally female or male jobs. Are counselors encouraging students of both sexes to enter all fields equally? Are counsellors discouraging enrollment in some programs due to the predominantly female or male heritage of vocation? Are recruiters equally attempting to recruit both sexes into all programs?

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